

Managing Urban Watershed Pathogen Contamination

Joyce Perdek
Chemical Engineer
UWMB/NRMRL/ORD
(732) 321-4380
perdek.joyce@epa.gov

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This presentation is a summary of the EPA National Risk Management Research Laboratory (NRMRL) publication entitled *Managing Urban Watershed Pathogen Contamination*, EPA/600/R-03/111 (September 2003). It is available on the Internet at <http://www.epa.gov/ednnrmrl/repository/water.htm>. Pathogens, disease-causing microorganisms, are a major concern for managers of water resources. Once in a water body, pathogens infect humans through consumption of contaminated fish and shellfish, skin contact, or ingestion of water. Protection from pathogen contamination is most important for waters designated for (1) recreation, (2) public water supplies, (3) aquifer protection, and (4) protection and propagation of fish, shellfish, and wildlife. The document provides information to support specific steps of the total maximum daily load (TMDL) process for meeting water quality standards for microorganisms in urban watersheds. The regulation of waterborne pathogens, detection methods, combined sewer overflow control technologies, and stormwater best management practices are discussed. Also presented is an evaluation of microbial indicators to estimate the presence of pathogens and likelihood of the occurrence of outbreaks.

State and local watershed managers who have the responsibility of managing pathogen contamination in urban watersheds, as well as members of the public interested in watershed mitigation efforts aimed at reducing microbial contamination, will benefit from this resource. The report, *Managing Urban Watershed Pathogen Contamination*, is intended to supplement the information included in the EPA document *Protocol for Developing Pathogen TMDLs*, Office of Water, EPA 841-R-00-002 (January 2001). This report was developed using information collected through extensive literature reviews by researchers in the Urban Watershed Management Branch of EPA's NRMRL.